

**REMARKS**

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-3, 5-13, 26-28, 30-38, and 51-60 are pending, and are allowable over the cited references.

**35 U.S.C. §102 Claim Rejections**

**A.** Claims 1-2, 6-9, and 11-12 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,751,821 to Birchard (hereinafter, "Birchard") (*Office Action* p.2).

**B.** Claims 1-3, 5-9, 11-13, 26-28, 30-38, and 51-60 are rejected under 35 U.S.C. §102(b) as being anticipated by a document entitled "An Advanced Buffet Load Alleviation System" by Burnham *et al.* (hereinafter, "Burnham") (*Office Action* p.3). Applicant respectfully traverses the rejections.

**Claim 1** recites: A hybrid actuator for actuating a component, comprising:

a first actuator adapted to be coupled to the component and to move the component a first actuation distance;

a second actuator adapted to be coupled to the component and to move the component a second actuation distance; and

a linkage connected to the first actuator and connected to the second actuator, the linkage adapted to combine the first actuation distance and the second actuation distance and to move the component a third actuation distance.

Neither Birchard nor Burnham show or disclose feature(s) recited in claim 1, such as "the linkage adapted to combine the first actuation distance and

1 the second actuation distance and to move the component a third actuation  
2 distance". The Office cites to Birchard Fig.11 for a first actuator, a second  
3 actuator, and a linkage between them (*Office Action* p.2).

4 However there is no indication as to which sections or features in Birchard  
5 the Office is relying upon as a basis to reject "the component" that is coupled to  
6 the first actuator and to the second actuator, or "the linkage adapted to combine  
7 the first actuation distance and the second actuation distance and to move the  
8 component a third actuation distance", as recited in claim 1. As the Examiner is  
9 likely aware, a proper technical rejection should be stated with fully developed  
10 reasons, and with specificity as to the basis for citing a particular reference.

11 Here, no particular explanation of either Birchard or Burnham is offered,  
12 and it is entirely unclear what the Office is asserting in Birchard or Burnham as a  
13 basis to substantiate the rejection of "the component" that is coupled to the first  
14 actuator and to the second actuator, "the linkage adapted to combine the first  
15 actuation distance and the second actuation distance", and "to move the  
16 component a third actuation distance", all as recited in claim 1.

17 As the Examiner is also aware, a single reference must teach each and  
18 every element of a claim to substantiate anticipation under 35 U.S.C. §102 (MPEP  
19 §2131). Neither Birchard nor Burnham show or disclose many of the feature(s)  
20 recited in claim 1, and the Office has not identified support in either Birchard or  
21 Burnham for the rejections.

22 Accordingly, claim 1 is independently allowable over both Birchard and  
23 Burnham for at least the reasons described above, and Applicant requests that the  
24 §102 rejections be withdrawn.  
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2 **Claims 2, 6-9, and 11-12 (rejected in view of Birchard)** are allowable by  
3 virtue of their dependency upon claim 1. Additionally, some or all of claims 2,  
4 6-9, and 11-12 are allowable over Birchard for independent reasons. For example:

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6 Claim 6 recites that “the linkage includes a pushrod attached between the  
7 first actuator and the second actuator”. The Office merely cites to Birchard Fig.11  
8 for a pushrod (*Office Action* p.2). However, Birchard clearly states that “Fig.11  
9 shows the use of a conventional U-joint as the coupling element between  
10 successive actuator cells” (*Birchard* col.8, lines 13-14). There is no indication in  
11 Birchard Fig.11 or the associated description of a “pushrod” as the Office  
12 contends. Further, Birchard does not appear to disclose any such pushrod as  
13 recited in claim 6.

14 Accordingly, claim 6 is allowable over Birchard and the §102 rejection  
15 should be withdrawn.

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17 Claim 9 recites that “the first actuator is adapted to move the component  
18 within a first range of frequencies”, and “the second actuator is adapted to move  
19 the component within a second range of frequencies, the second range of  
20 frequencies being substantially higher than the first range of frequencies.”

21 The Office merely copies the claim language and concludes that Birchard  
22 discloses the claimed feature(s) (*Office Action* p.3). Again, it is entirely unclear  
23 what the Office is asserting in Birchard as a basis to substantiate the rejection of  
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1 claim 9. Further, a quick text search of Birchard reveals that the words  
2 “frequency” and “frequencies” do not even appear in Birchard.

3 Accordingly, claim 9 is allowable over Birchard and the §102 rejection  
4 should be withdrawn.

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6 Claim 11 recites that “the second actuator includes a clevis adapted to join a  
7 pushrod to the component”. The Office merely cites to Birchard Fig.11 for a  
8 clevis (*Office Action* p.3). However, Birchard clearly states that “Fig.11 shows the  
9 use of a conventional U-joint as the coupling element between successive actuator  
10 cells.” (*Birchard* col.8, lines 13-14). There is no indication in Birchard Fig.11 or  
11 the associated description of a “clevis” as the Office contends. Further, Birchard  
12 does not appear to disclose any such clevis as recited in claim 11.

13 Accordingly, claim 11 is allowable over Birchard and the §102 rejection  
14 should be withdrawn.

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16 Claim 12 recites that “the first actuator is activated at a frequency between  
17 0 and 25 cycles per second.” The Office merely concludes that Birchard discloses  
18 that the device may operate at 0 frequency (*Office Action* p.3). Again, it is entirely  
19 unclear what the Office is asserting in Birchard as a basis to substantiate the  
20 rejection of claim 12, and as described above in response to the rejection of claim  
21 9, a quick text search of Birchard reveals that the word “frequency” does not even  
22 appear in Birchard.

23 Accordingly, claim 12 is allowable over Birchard and the §102 rejection  
24 should be withdrawn.

1        **Claims 1-3, 5-9, 11-13, 26-28, 30-38, and 51-60 (rejected in view of**  
2        **Burnham)** are rejected entirely based on a single conclusion (*Office Action* p.3):

3                “See page 3, actuators are hydraulic (inherently in the F-18), and  
4                Piezo as seen in the reference as well as a pushrod (the end of the  
5                hydraulic cylinder).”

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7                A proper rejection should be stated with fully developed reasons, and with  
8                specificity as to the basis for citing a particular reference. Here, no particular  
9                explanation is offered and it is entirely unclear what the Office is asserting in  
10               Burnham as a basis to substantiate the rejection of the many feature(s) recited in  
11               claims 1-3, 5-9, 11-13, 26-28, 30-38, and 51-60.

12               For example, independent claims 1, 26, and 51 recite features that Burnham  
13               does not show or disclose, and that the Office does not even acknowledge.  
14               (Claim 1 is discussed above).

15               Claim 26 recites several components of a system for suppressing undesired  
16               movement of a component, as well as “the linkage adapted to combine the first  
17               actuation distance and the second actuation distance thereby moving the  
18               component a third actuation distance”. There is no indication as to which sections  
19               or features in Burnham the Office is relying upon as a basis to reject claim 26.

20               Claim 51 recites several components of an aircraft with hybrid motion  
21               suppression, as well as “the linkage adapted to combine the first actuation distance  
22               and the second actuation distance thereby moving at least a portion of the  
23               appendage a third actuation distance in opposition to the undesired movement”.  
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1 There is no indication as to which sections or features in Burnham the Office is  
2 relying upon as a basis to reject claim 51.

3 Accordingly, independent claim 1 along with dependent claims 2-3, 5-9,  
4 and 11-13; independent claim 26 along with dependent claims 27-28 and 30-38;  
5 and independent claim 51 along with dependent claims 52-60 are allowable over  
6 Burnham, and the §102 rejection should be withdrawn or clarified.

7  
8 **Conclusion**

9 Pending claims 1-3, 5-13, 26-28, 30-38, and 51-60 are in condition for  
10 allowance. Applicant respectfully requests reconsideration and issuance of the  
11 subject application. If any issues remain that preclude issuance of this application,  
12 the Examiner is urged to contact the undersigned attorney before issuing a  
13 subsequent Action.

14  
15 Respectfully Submitted,

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